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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,738	05/18/2005	Hiroyasu Inoue	890050.525USPC	9394

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EXAMINER	
NGUYEN, LINH THI	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/535,738	INOUE ET AL.	
	Examiner	Art Unit	
	Linh T. Nguyen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *1-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hideki et al (JP 2001/243655) in view of Yoshinari et al (US Patent Number 6333913).

In regards to claims 9, 17 and 18, Hideki et al discloses a method, apparatus and medium for recording data in an optical recording medium wherein the optical recording medium includes a substrate (Fig. 1), a protective layer (Fig. 1, elements 6 and 8) and a plurality of information recording layers (Fig. 1, elements 4 and 7) between the substrate (Fig. 1, elements 1, 3, and 5) and the protective layer (Fig. 1, elements 6 and 8) the method for recording data in an optical recording medium comprising: projecting a laser beam onto the plurality of information recording layers (Fig. 3) whose power is modulated between at least three levels (Fig. 4, P1-4) including a level corresponding to a recording power (Fig. 4, P1), a level corresponding to an intermediate power lower (Fig. 4, P2) than the recording power and a level corresponding to a bottom power lower (Fig. 4, P4) than the intermediate power onto at least one information recording layer other than an information recording layer farthest from the light incidence plane and forming a recording mark in the at least one information recording layer other than the information recording layer farthest from the light incidence plane, thereby recording

data therein (Paragraph [0027] and [0043]). However, Hideki et al does not disclose a method and apparatus for recording data on a an optical recording medium, wherein the power of the laser is set to the bottom power when it is projected onto the end portion of each of the recording marks, and wherein the power of the laser beam is modulated so that a time period during which the power of the laser beam is set to the bottom power for forming the end portion of each of the recording marks becomes longer as a linear recording velocity is higher.

In the same field of endeavor, Yoshinari et al discloses a method and apparatus for recording data on a an optical recording medium, wherein the power of the laser is set to the bottom power when it is projected onto the end portion of each of the recording marks (Fig. 3, Pc), and wherein the power of the laser beam is modulated so that a time period during which the power of the laser beam is set to the bottom power for forming the end portion of each of the recording marks becomes longer as a linear recording velocity is higher (Column 10, lines 49-52). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Hideki et al method of modulation of three powers to set the bottom power at the end portion of the recording marks longer as linear recording velocity is higher as Yoshinari et al suggested. The motivation for doing so would have to decrease the jittering (Column 10, lines 58-61).

In regards to claims 10 and 19, Hideki et al discloses a method and an apparatus for recording data in an optical recording medium, wherein the power level of the bottom

power (Fig. 4, P4) is set so that a region of the at least one information recording layer other than the information recording layer farthest form the light incidence plane heated by irradiation with the laser beam (Fig. 1) whose power is set too the recording power (Fig. 4, P1) can be cooled during irradiation with the laser beam whose power is set at the bottom power (Fig. 4).

In regards to claims 11, 12, 20 and 21, Hideki et al discloses a method and an apparatus for recording data in an optical recording medium, wherein the power of the laser beam is set to the intermediate power (Fig. 4, P2 or P3) when it is projected onto a region between neighboring recording marks to be formed in the at least one information recording layer other than the information recording layer farthest from he light incidence plane (Fig. 4).

In regards to claims 13, 14, 22 and 23, Hideki et al discloses a method and an apparatus for recording data in an optical recording medium, wherein data are recorded by employing an objective lens and a laser beam whose numerical aperture NA and wavelength .lamda. satisfy .lamda./NA .ltoreq.640 nm, and projecting the laser beam onto the optical recording medium via the objective lens (Paragraph [0045]).

In regards to claims 15, 16, 27, and 28, Hideki et al discloses a method for recording data in an optical recording medium in accordance with claim 1, wherein the protective layer is formed of a light transmissible material and the laser beam is

projected onto the plurality of the information recording layers via the protective layer (Paragraph [0029]).

In regards to claims 24, 25, and 26, Hideki et al discloses an optical recording medium, which is further recorded with third data (Paragraph [0055], stated two or more pulse trains (third data)) for setting data recording conditions necessary for setting the level of the bottom power (Fig. 4, P4) so that a region of the at least one information recording layer other than the information recording layer farthest from the light incidence plane heated by irradiation with the laser beam whose power is set to the recording power can be cooled during irradiation with laser beam whose power is set at the bottom power (Paragraph [0054]).

Response to Arguments

Applicant's arguments, see page 10, lines 16-22, filed 8/25/06, with respect to the rejection(s) of claim(s) 9 under Yamada et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yoshinari et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
November 5, 2006

THANG V. TRAN
PRIMARY EXAMINER